

IN THE DRAWINGS

The Examiner objected to Figures 10 and 13-14 because of various informalities.

Applicants have submitted replacement figures reflecting the corrections made to overcome the Examiner's objections. A copy of the drawings marked "Annotated" showing the changes in red along with a "Replacement Sheet" which complies with 37 CFR 1.84 have been submitted herewith. No new matter was added.

The Examiner's permission is requested to make the following changes to the drawings to correspond with the specification as required by MPEP §608.01(g). No new matter has been added.

REMARKS

Applicants have studied the Office Action dated November 4, 2004. No new matter has been added. It is submitted that the application, is in condition for allowance. Applicants have amended Claims 1, 3-6, 11, 13-14, 16 and 18-19, and canceled Claims 2, 12, and 15 and added new Claim 22. By virtue of this amendment, Claims 1, 3-11, 13-14, and 16-22 are pending. Reconsideration and further examination of the pending claims in view of the above amendments and the following remarks is respectfully requested. In the Office Action, the Examiner:

- (1) Objected to Figures 10 and 13-14 because of various informalities;
- (2) Objected to the Specification because of various informalities;
- (3) Objected to Claim 4 because of various informalities;
- (4-13) Rejected Claims 1, 4, 8, 9, 11, 14, 17, and 21 under 35 U.S.C. §102(e) as being anticipated by Chen (U.S. Patent No. 6,552,744);
- (14-17) Rejected Claims 2, 12, and 15 under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 6,552,744), and further in view of Anderson (U.S. Patent No. 5,903,309);
- (18-20) Rejected Claims 3, 13, and 16 under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 6,552,744) and Anderson (U.S. Patent No. 5,903,309), and further in view of Anderson et al. (U.S. Patent No. 6,493,028);
- (21-25) Rejected Claims 5-6 and 18-19 under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 6,552,744) and Anderson (U.S. Patent No. 5,903,309), and further in view of Suzuki (U.S. Pat. No. 5,724,579);
- (26-27) Rejected Claims 7 and 20 under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 6,552,744), and further in view of May et al. (U.S. Pat. No. 6,714,249); and
- (28) Rejected Claim 10 over Chen (U.S. Patent No. 6,552,744), and further in view of Mizoguchi et al. (U.S. Pat. No. 5,959,669).

Overview of the Present Invention

The present invention provides a picture stitching device, a method, and a computer readable medium for creating a panoramic image from at least two images. A digital camera is one type of picture stitching device that has become very popular for creating panoramic images. To provide panoramic photography effects, digital cameras can interface with personal computers for joining together two or more images into one image to provide a panoramic effect by joining edge boundaries of images. One problem often encountered when using digital cameras for creating panoramic pictures is the amount of additional memory needed to save the panoramic image separately from the original images composing the panorama.

Another problem encountered is how the panoramic image is stored. Specifically, the prior art systems store the panoramic image in strips or in a format other than the complete panoramic image. A panoramic image format that is stored in strips or in a format other than the complete image is useful only for a stitching application. Other applications, such as, an electronic photo album, process each strip as a single image and displays each image separately. This displaying of each strip separately many times confuse the user since the entire panoramic is not displayed at once. Accordingly, a need exists for a method and a system to store still images in an image format that is compatible with other image formats such as JPEG.

An additional problem is that pictures saved with original parameters such as motion estimation, color correction, focal length and other image stitching parameter are not compatible with popular storage formats such as JPEG (Joint Photographic Experts Group ISO standard 10918). In fact, along with the Graphic Interchange Format (GIF) file, the JPEG is a file type supported by the World Wide Web protocol. Accordingly, needs exist for a method and apparatus to store images with panoramic parameters in such a way that the image storage format is compatible with other still image formats

such as JPEG. In addition to the above problems, a user is left with very little choice for correcting imperfections in the panoramic image after it is captured if the parameters of motion estimation and color correction are lost

To overcome the problems of using a digital camera to create a panoramic image, the present invention receives a first image forming a part of a series of images to form a panoramic image. The first image is then stored in memory. One or more subsequent images are received and for each of the images received one or more panoramic parameters are calculated between a current image and a previous image stored in memory. Also, the current image is stored with the one or more panoramic parameters in memory. The one or more panoramic parameters are also stored in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters.

In order to more particularly point the distinctness of the present invention the following language has been added to the independent claims, i.e., claims 1, 11, and 14 as follows:

receiving a first image forming a part of a series of images to form a panoramic image;

storing the first image in memory;

receiving one or more subsequent images and for each of the images received performing the sub-steps of

calculating one or more panoramic parameters between a current image and a previous image stored in memory; and

storing the current image with the one or more panoramic parameters in memory, wherein the one or more panoramic parameters are also stored in a field of a compressed image format reserved for at

least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters.

No new matter has been added. Support for this amended language is found in the application as originally filed and particularly at FIGs. 10 and 13-14 and pages 15-17.

(1) Objection to Figures

As noted above, the Examiner objected to Figures 10 and 13-14 because of various informalities. Applicants have submitted replacement figures reflecting the corrections made to overcome the Examiner's objections. No new matter was added. The Applicants respectfully request that the Examiner's objection to the drawings be withdrawn.

(2) Objection to the Specification

As noted above, the Examiner objected to the Specification because of various informalities. A substitute Specification has been attached to this amendment and renders the objection to the Specification moot. No new matter was added. The Applicants respectfully request that the Examiner's objection to the specification be withdrawn.

(3) Objection to Claim 4

As noted above, the Examiner objected to Claim 4 because of various informalities. Applicants have amended Claim 4 so that Claim 4 now depends from Claim 1. The Applicants respectfully request that the Examiner's objection to claim 4 be withdrawn.

(4-13) Rejection under 35 U.S.C. §102(e) as being anticipated by Chen

As noted above, the Examiner rejected Claims 1, 4, 8, 9, 11, 14, 17, and 21 under 35

U.S.C. §102(e) as being anticipated by Chen (U.S. Patent No. 6,552,744). Independent Claims 1, 11 and 14 have been amended to distinguish over Chen. Specifically, Chen is silent on:

receiving a first image forming a part of a series of images to form a panoramic image;

storing the first image in memory;

receiving one or more subsequent images and for each of the images received performing the sub-steps of

calculating one or more panoramic parameters between a current image and a previous image stored in memory; and

storing the current image with the one or more panoramic parameters in memory, wherein the one or more panoramic parameters are also stored in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters.

Chen discloses a virtual reality camera for rendering multiple-view images which are combined using the determined spatial relationship between the images. See Chen at col. 2, lines 13-18. The Examiner directs Applicants to col. 7, lines 23-26, wherein Chen teaches a data structure having one member for each discrete image and which indicates neighboring images and their angular or positional proximity. It is not clear that Chen is using this data structure with respect to a panoramic image and consequently the data structure does not contain any panoramic parameters. For example, Chen teaches using a data structure for creating an object image. See Chen at col. 6 to col. 7, lines 57-67 and 1-34 respectively. An object image, as taught by Chen, is a set of discrete images that are spatially related to one another, but which have not been stitched together to form a composite image. See Chen at FIG. 4; and

col. 6, lines 59-62. Images of an object are captured from surrounding points of view, including viewpoints from above or under the object. Chen is not teaching a panoramic image here; he is teaching a different type of a multiple-view image. The images taken to form a panoramic image, as taught by Chen, are taken so that there are no gaps in the panoramic image, that is, each image overlaps the prior image. See Chen at FIG. 2 and col. 4, lines 49-51. The differences between the multiple-view image that Chen is teaching using the data structure and the panoramic image taught by Chen should be evident from FIGs. 2 and 4. Therefore, it is not clear that the data structure indicating neighboring images their angular proximity or positional does not contain panoramic parameters and independent Claims 1, 11, and 14 of the present invention distinguish over Chen for at least this reason.

Even assuming arguendo that Chen teaches using the above data structure with a panoramic image, the types of parameters Chen teaches are different than the panoramic parameters as taught by the present invention. The parameters in the data structure only indicate the neighboring images and their angular or positional proximity. Additionally, Chen teaches that the type of parameter that is recorded for each image is camera orientation information, for example, pitch, yaw, and roll. See Chen at col. 3, lines 28-33 and col. 5, lines 30-40. In contrast, "panoramic parameters" as taught by the present invention are specific to the panoramic picture itself and the images that are captured to create the panoramic picture and are not based on camera orientation, as taught by Chen. For example, one type of panoramic parameter, as taught by the present invention, is motion estimation which is the amount of overlap between the images. Another panoramic parameter that is specific to the image is the panoramic mode, for example, left-to-right horizontal mode. See Specification at page 20, lines 3-4; See also U.S. Pat No. 6,771,304, which has been incorporated by reference, at col. 19, lines 34-67; col. 20, lines 1-5; and col. 7 to col. 8, lines 62-67 and 1-18

respectively..¹ Therefore, Chen does not teach, anticipate, or suggest panoramic parameters, as taught by the present invention, and independent Claims 1, 11, and 14 of the present invention distinguish over Chen for at least this reason as well.

Additionally, Claims 2, 12, and 15 have been incorporated into Claims 1, 11, and 14 respectively and subsequently canceled. Amended Claim 1 now more distinctly and clearly recites, among other things, “storing the current image with the one or more panoramic parameters in memory, wherein the one or more panoramic parameters are also stored in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters”. As the Examiner correctly stated on page 6, paragraph 15, Chen does not teach or suggest storing the one or more panoramic parameters in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters. Accordingly, independent Claims 1, 11, and 14 of the present invention as amended distinguish over Chen for at least this reason as well.

For the foregoing reasons, independent Claims 1, 11, and 14 as amended distinguish

¹ Panoramic Parameters are defined in the 6,771,304 to include “One or more user inputs via the LCD Controller 128 provides user control over camera functions such as the orientation of the panoramic e.g., horizontal or vertical, and the direction of movement such as a Left-to-Right Horizontal Panoramic, a Right-to-Left Horizontal Panoramic; a Top-to-Bottom Vertical Panoramic; and a Bottom-to-Top Vertical Panoramic. Other user input such as the optional features and desired effects and to set system parameters such as:

Panorama mode on / off.

Panorama parameters.

- Left-to-Right Horizontal mode.
- Right-to-Left Horizontal mode.
- Top-to-Bottom Vertical mode.
- Bottom-to-Top Vertical mode.
- Set Overlay Part Length.

over Chen. Claims 3-10, 13, and 16-21 depend from amended Claims 1, 11 and 14 respectively, and since dependent claims contain all the limitations of the independent claims, Claims 3-10, 13, and 16-21 distinguish over Chen, and the Examiner's rejection should be withdrawn, which withdrawal is respectfully requested.

(18-20) Rejection under 35 U.S.C. §103(a) in view of Chen and Anderson '309

As noted above, the Examiner rejected Claims 2, 12 and 15 under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 6,552,744), and further in view of Anderson (U.S. Patent No. 5,903,309). Dependent Claims 2, 12 and 15 have been canceled and incorporated into independent Claims 1, 11, and 14 respectively. Accordingly, the Applicants believe that the rejection of dependent Claims 2, 12, and 15 under 103(a) is not rendered moot. However, additional arguments regarding independent Claims 1, 11, and 14, which have been amended to distinguish over Chen taken alone and/or in view of Anderson '309, are given below with respect to Anderson '309.

The above arguments and remarks regarding Chen and Claims 1, 11, and 14, and more specifically, "panoramic parameters" and "storing the one or more panoramic parameters in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters", are likewise applicable here. These applicable arguments have already been presented above and will not be repeated here.

As the Examiner correctly states on page 6 of the Office Action, Chen is silent on storing panoramic parameters in a field of a compressed image format reserved for at least one of comments and extensions and goes on to combine Chen and Anderson.²

² Applicants make no statement whether such combination is even proper.

Careful reading of the extended file format, as taught by Anderson '309, is for allowing an indication of the media type the image is. See Anderson at col. 6, lines 39-44. The Examiner directs Applicants to col. 9, lines 43-50, wherein Anderson '309 teaches an extended file format that includes a standard header, JPEG data, and a thumbnail image. An extended header includes an information field and a sound field. A media type tag, which is located in the information field, indicates, for example, whether the image is a single image or a panoramic image. See Anderson at '309 at col. 6, lines 39-44. The media type tag is used to select the type of icon that is displayed in the icon/information area of a cell when the thumbnail of the image is displayed. See Anderson '309 at FIGs. 6 and 7. For example, the information included in the media type tag, identifies the image as a panoramic image. When the image is displayed in the image cell 420 of FIG. 6, the panoramic icon of FIG. 7 will be displayed in the Icon/info area 424 of FIG. 6. In other words, no panoramic parameters are stored, only an indication of what type of image is stored.

In contrast, the panoramic parameters, as recited for independent Claims 1, 11 and 14 are calculated and then the current image with the one or more panoramic parameters is stored in memory. Additionally, the one or more panoramic parameters are also stored in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters. Accordingly, independent Claims 1, 11, and 14 distinguish over Chen and/or in view of Anderson '309 for at least this reason

Moreover, the Federal Circuit has consistently held that when a §103 rejection is based upon a modification of a reference that destroys the intent, purpose or function of the invention disclosed in the reference, such a proposed modification is not proper and the *prima facie* case of obviousness can not be properly made. See *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Here the intent, purpose and function of Anderson is to use to store media type information in an extended header field. In

contrast, the intent and purpose of the present invention is to store panoramic parameters in a field of a compressed image format reserved for least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters. This combination, as suggested by the Examiner, destroys the intent and purpose of Anderson's '309 use of an extended header field to indicate what media type the image is. Accordingly, independent Claims 1, 11, and 14 of the present invention are distinguishable over Chen and/or in view of Anderson for at least this reason as well.

For the foregoing reasons, independent Claims 1, 11, and 14 as amended distinguish over Chen taken alone or in view of Anderson '309 and the Examiner's rejection should be withdrawn, which withdrawal is respectfully requested.

(21-25) Rejection under 35 U.S.C. §103(a) in view of Chen, Anderson '309 with
Anderson '028

As noted above, the Examiner rejected Claims 3, 13, and 16 under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 6,552,744) and Anderson (U.S. Patent No. 5,903,309), and further in view of Anderson et al. (U.S. Patent No. 6,493,028). Independent Claims 1, 11 and 14 have been amended to distinguish over Chen taken alone and/or in view of Anderson '309 and/or Anderson '028.

As the Examiner correctly states on page 7 of the Office Action, Chen and Anderson '309 are silent on giving the user the ability to chose the compression type of the stored image and goes on to combine Chen and Anderson '309 with Anderson '028 and.³

For the reasons set forth in the section entitled "Rejection under 35 U.S.C. §103(a) in view of Chen and Anderson" above, independent Claims 1, 11, and 14 distinguish over

³ Applicants make no statement whether such combination is even proper.

Chen taken alone and/or in view of Anderson '309. Specifically, Chen and Anderson '309 are both silent on:

panoramic parameters, as recited for amended Claims 1, 11, and 14, and storing the one or more panoramic parameters in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters

Anderson '028 discloses a method and a system for extending the available file formats or allowing additional file formats to be available in an image capture device. See Anderson '028, col. 2, lines 9-16. Anderson '028 does not teach or suggest that the extended file formats or additional file formats can be used on panoramic images. Additionally, nowhere does Anderson '028 teach or suggest calculating one or more panoramic parameters between a current image and a previous image stored in memory. Nor does Anderson teach or suggest storing the current image with the one or more panoramic parameters in memory, wherein the one or more panoramic parameters are also stored in a field of a compressed image format reserved for least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters, as recited for amended independent Claims 1, 11, and 14. Accordingly, independent Claims 1, 11, and 14 of the present invention as amended distinguish over Chen and/or Anderson '309 and/or in further view of Anderson '028 for at least this reason.

Moreover, when there is no suggestion or teaching in the prior art for storing the current image with the one or more panoramic parameters in memory, wherein the one or more panoramic parameters are also stored in a field of a compressed image format reserved for least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters

the suggestion can not come from the Applicant's own specification. The Federal Circuit has repeatedly warned against using the Applicant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings of the prior art. See MPEP §2143 and Grain Processing Corp. v. American Maize-Products, 840 F.2d 902, 907, 5 USPQ2d 1788 1792 (Fed. Cir. 1988) and In re Fitch, 972 F.2d 160, 12 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). The prior art reference Anderson '028 does not even suggest, teach nor mention panoramic images, panoramic parameters, or storing panoramic parameters in a field of a compressed image format.

For the foregoing reasons, independent Claims 1, 11, and 14 as amended distinguish over Chen and/or Anderson '309 and/or in further view of Anderson '028. Claims 3, 13, and 16 depend from Claims 1, 11, and 14 respectively. Since dependent claims contain all the limitations of the independent claims, Claims 3, 13, and 16 distinguish over Chen taken alone and/or in view of Anderson '309 and/or in view of Anderson '028 as well, and the Examiner's rejection should be withdrawn, which withdrawal is respectfully requested.

(21-25) Rejection under 35 U.S.C. §103(a) in view of Chen, Anderson '309 with Suzuki

As noted above, the Examiner rejected Claims 5-6 and 18-19 under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 6,552,744) and Anderson (U.S. Patent No. 5,903,309), and further in view of Suzuki (U.S. Pat. No. 5,724,579). Independent Claims 1, 11 and 14 have been amended to distinguish over Chen taken alone and/or in view of Anderson '309 and/or Suzuki.

The above arguments and remarks regarding Chen and Claims 1, 11, and 14, and more specifically, "panoramic parameters" and "storing the one or more panoramic parameters in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters", are likewise applicable here. These applicable arguments have already been presented above and

will not be repeated here.

As the Examiner correctly states on pages 8 and 9 of the Office Action, Chen and Anderson '309 are silent on storing panoramic parameters in a comment field of an image format or in a marker segment of a JPEG image format and goes on to combine Chen and Anderson '309 with Suzuki.⁴ Suzuki teaches an image processing apparatus (digital camera) capable of high speed retrieval of data while improving operation control. See Suzuki at col. 1, lines 35-37. Suzuki teaches that part of the image data of a main image is extracted to produce subordinate image data. The subordinate image data that is produced and the main image data are recorded in such a relation that they can be discriminated. File headers may contain, together or separately, the main image data, data from a first subordinate image created from the main image. See Suzuki at FIG. 2 and col. 10, lines 6-8. Also, the file header may contain data from a subsequent subordinate image that was created from a prior subordinate image. See Suzuki at FIG. 6 and col. 11, lines 7-14. Suzuki also teaches that subordinate image data is recorded in an application marker of a JPEG header. See Suzuki at col. 10, lines 64-67 and col. 15, lines 37-43. An application marker is used for application specific information.

In contrast, the panoramic parameters, as recited for independent Claims 1, 11 and 14 are calculated and then the current image with the one or more panoramic parameters is stored in memory. Additionally, the one or more panoramic parameters are also stored in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters. Nowhere does Suzuki teach, anticipate or suggest storing panoramic parameters in a field of a compressed image format reserved for at least one of comments and extensions, as recited for amended Claims 1, 11, and 14, or even more specifically, in a comment field of an image format or a marker segment of a JPEG image format, as recited for Claims 5-6 and 18-19.

⁴ Applicants make no statement whether such combination is even proper.

Suzuki teaches storing subordinate image data, which is data associated with an image created from a main image and not panoramic parameters. Accordingly, independent Claims 1, 11, and 14 and dependent Claims 5-6 and 18-19 distinguish over Chen and/or in view of Anderson '309 and/or in view of Suzuki for at least this reason.

Moreover, when there is no suggestion or teaching in the prior art for storing the current image with the one or more panoramic parameters in memory, wherein the one or more panoramic parameters are also stored in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters the suggestion can not come from the Applicant's own specification. The Federal Circuit has repeatedly warned against using the Applicant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings of the prior art. See MPEP §2143 and Grain Processing Corp. v. American Maize-Products, 840 F.2d 902, 907, 5 USPQ2d 1788 1792 (Fed. Cir. 1988) and In re Fitch, 972 F.2d 160, 12 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). The prior art reference Suzuki does not even suggest, teach nor mention panoramic images, panoramic parameters, or storing panoramic parameters in a field of a compressed image format.

For the foregoing reasons, independent Claims 1, 11, and 14 as amended distinguish over Chen and/or in view of Anderson '309, and/or in further view of Suzuki. Claims 5-6 and 18-19 depend from amended Claim 1, and since dependent claims contain all the limitations of the independent claims, Claims 5-6 and 18-19 distinguish over Chen and/or Anderson '309 and/or in further view of Suzuki as well, and the Examiner's rejection should be withdrawn, which withdrawal is respectfully requested.

(26-27) Rejection under 35 U.S.C. §103(a) in view of Chen and May

As noted above, the Examiner rejected Claims 7 and 20 under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 6,552,744), and further in view of May et al. (U.S. Pat. No. 6,714,249).

For the reasons set forth in the section entitled "Rejection under 35 U.S.C. §103(e) as being anticipated by Chen" above, independent Claims 1 and 14 distinguish over Chen.

As the Examiner correctly states on 10 of the Office Action, Chen is silent on storing sequence numbers for the captured images and goes on to combine Chen with May.⁵ May teaches producing a images used to create a panoramic image with a digital camera that is mounted on a stand. See May at Abstract. The captured images are then transferred to a computer where the computer created the panoramic image from the images captured by the digital camera. See May at col. 8, lines 37-53. Nowhere does May teach, anticipate, or suggest, storing one or more panoramic parameters are also stored in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters, as recited for amend independent Claims 1 and 14. Accordingly, independent Claims 1 and 14 of the present invention as amended distinguish over Chen in view of May for at least this reason.

For the foregoing reasons, independent Claims 1 and 14 as amended distinguish over Chen and/or in view of May. Claims 7 and 20 depend from amended Claim 1 and 14 respectively, and since dependent claims contain all the limitations of the independent claims, Claims 7 and 20 distinguish over Chen and/or May as well, and the Examiner's rejection should be withdrawn, which withdrawal is respectfully requested.

(28) Rejection under 35 U.S.C. §103(a) in view of Chen and Mizoguchi

As noted above, the Examiner rejected Claim 10 under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 6,552,744), in view of Mizoguchi et al.

⁵ Applicants make no statement whether such combination is even proper.

(U.S. Patent No. 5,959,669. Independent Claim 1 has been amended to distinguish over Chen taken alone and/or in view of Mizoguchi.

For the reasons set forth in the section entitled "Rejection under 35 U.S.C. §103(e) as being anticipated by Chen" above, independent Claim 1 distinguishes over Chen.

As the Examiner correctly states on page 11 of the Office Action, Chen is silent on decoding one or more images or down sampling the one or more images to fit a given display format and goes on to combine Chen with Mizoguchi.⁶ Mizoguchi teaches an image pickup apparatus with a standard resolution photographing mode for performing photography with a standard resolution. A high resolution photographing mode is also included for performing photography with a high resolution. Nowhere does Mizoguchi teach, anticipate, or suggest

receiving a first image forming a part of a series of images to form a panoramic image; storing the first image in memory;

receiving one or more subsequent images and for each of the images received performing the sub-steps of

calculating one or more panoramic parameters between a current image and a previous image stored in memory; and

storing the current image with the one or more panoramic parameters in memory, wherein the one or more panoramic parameters are also stored in a field of a compressed image format reserved for at least one of comments and extensions so as to preserve the stored image file compatibility with other images stored without the one or more panoramic parameters, as recited for amended independent Claims 1.

For the foregoing reasons, independent Claim 1 as amended distinguishes over Chen

⁶ Applicants make no statement whether such combination is even proper.

taken alone and/or in view of Mizoguchi. Claim 10 depends from amended Claim 1, and since dependent claims contain all the limitations of the independent claims, Claim 10 distinguishes over Chen taken alone and/or in view of Mizoguchi as well, and the Examiner's rejection should be withdrawn, which withdrawal is respectfully requested.

Newly Added Claim

Claim 22 has been added to recite an embodiment of the present invention where a preview strip as illustrated in the present invention in FIGs. 4-9 is used in the picture capture process. Claim 22 recites inter alia "aligning a current image with a prior image by using a preview strip." This preview strip is used in the capture process to help the user properly align the previously captured image with the next image pages 11-13 of the present invention. The Applicants respectfully submit that the prior art of record is silent on this type of alignment and therefore claim 22 should be allowable which allowance is respectfully requested.

CONCLUSIONS

In light of the Office Action, Applicants believe these amendments serve a useful clarification purpose, and are desirable for clarification purposes, independent of patentability. Accordingly, Applicants respectfully submit that the claim amendments do not limit the range of any permissible equivalents.

Applicants acknowledge the continuing duty of candor and good faith to the disclosure of information known to be material to the examination of this application. In accordance with 37 CFR §§ 1.56, all such information is dutifully made of record. The foreseeable equivalents of any territory surrendered by amendment is limited to the territory taught by the information of record. No other territory afforded by the doctrine of equivalents is knowingly surrendered and everything else is unforeseeable at the time of this amendment by the Applicants and their attorneys.

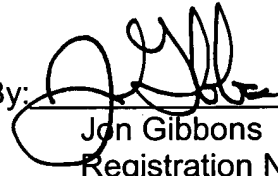
Applicants respectfully submit that all of the grounds for rejection stated in the Examiner's Office Action have been overcome, and that all claims in the application are allowable. No new matter has been added. It is believed that the application is now in condition for allowance, which allowance is respectfully requested.

PLEASE, if for any reason the Examiner finds the application other than in condition for allowance, the Examiner is invited to call either of the undersigned attorneys at (561) 989-9811 should the Examiner believe a telephone interview would advance the prosecution of the application.

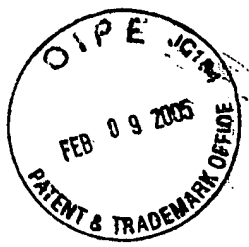
Respectfully submitted,

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APPENDIX A

ANNOTATED FIGs. 1, 13, and 14

APPENDIX B

REPLACEMENT FIGs. 1, 13, and 14

6/9

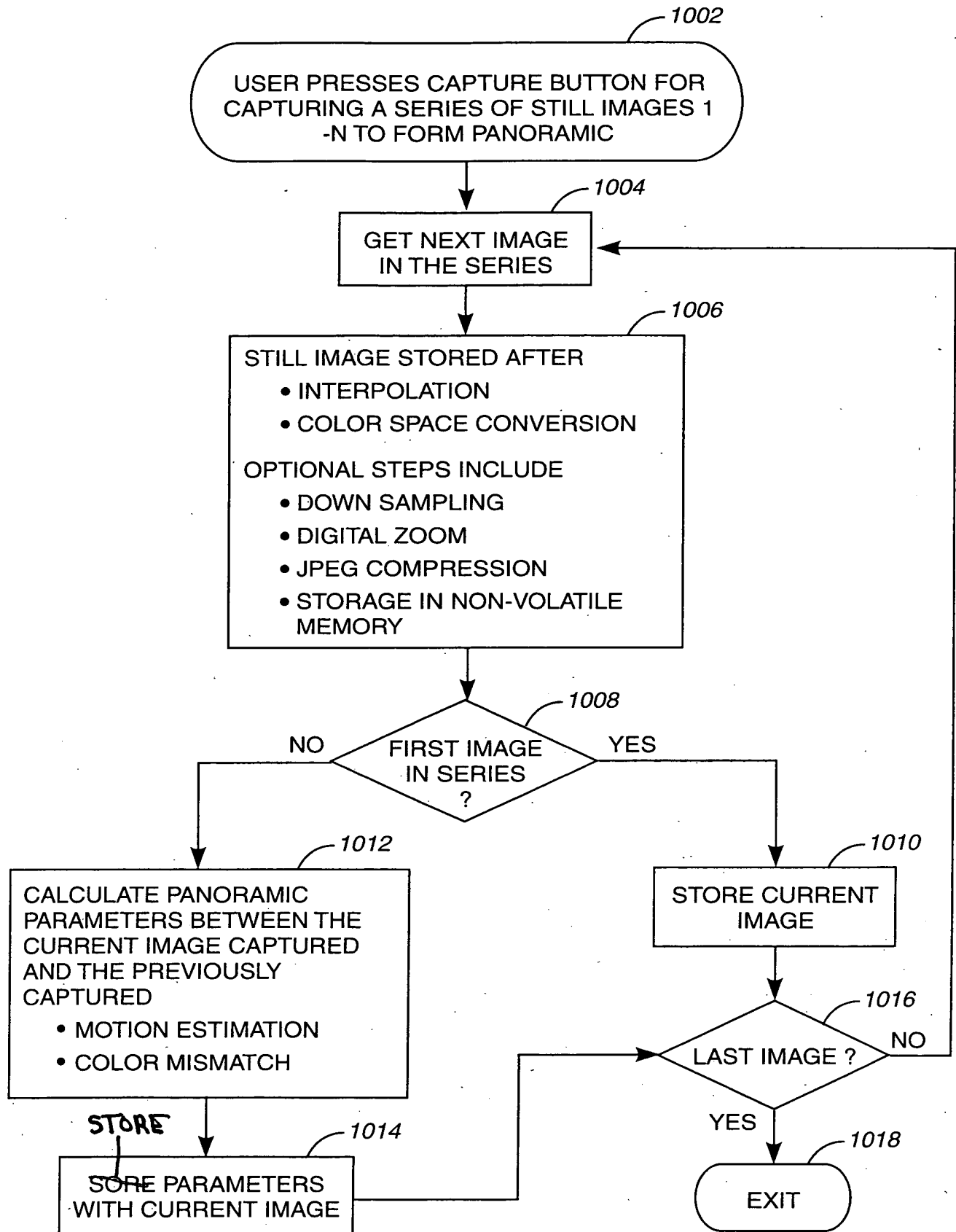


FIG. 10

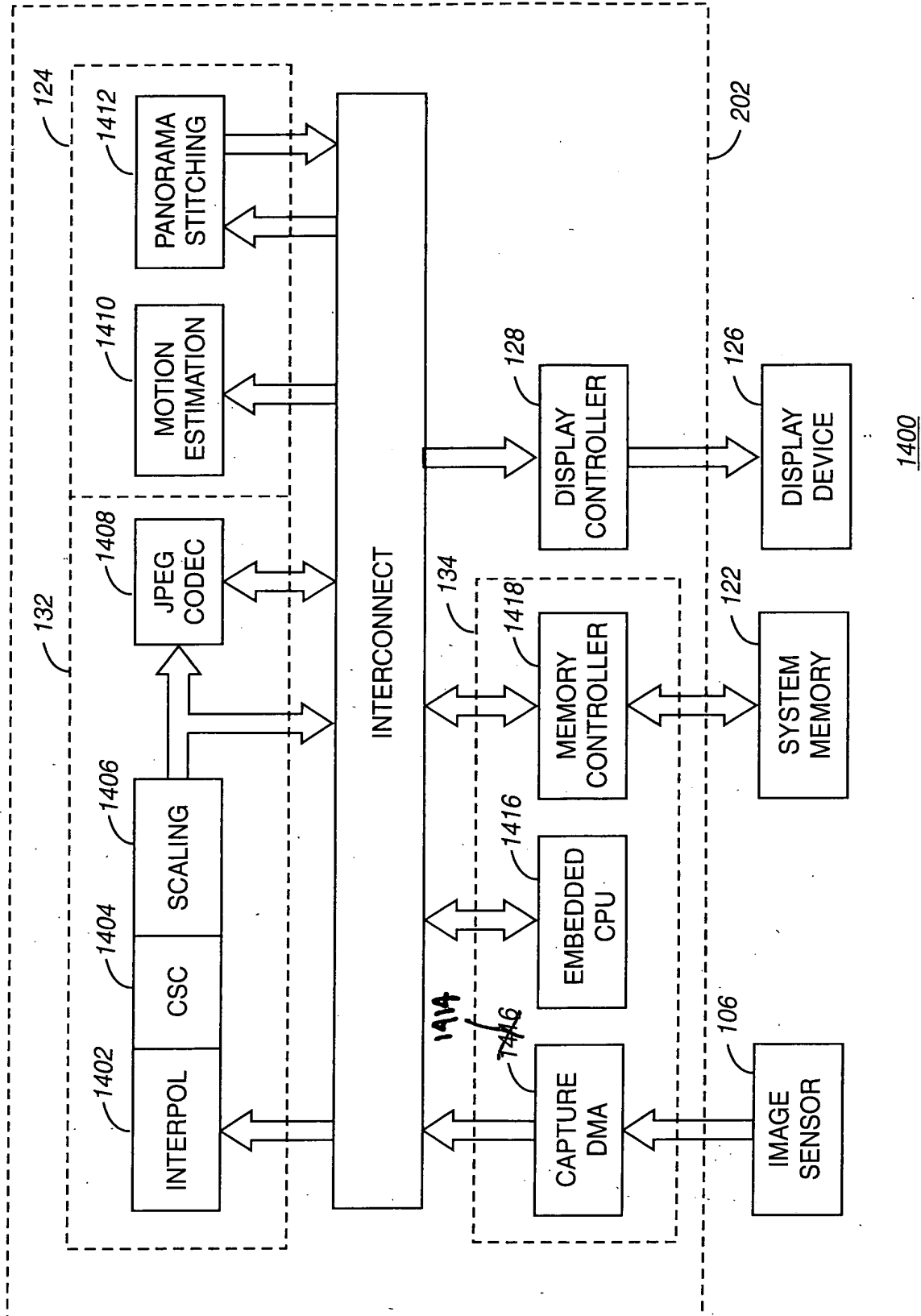
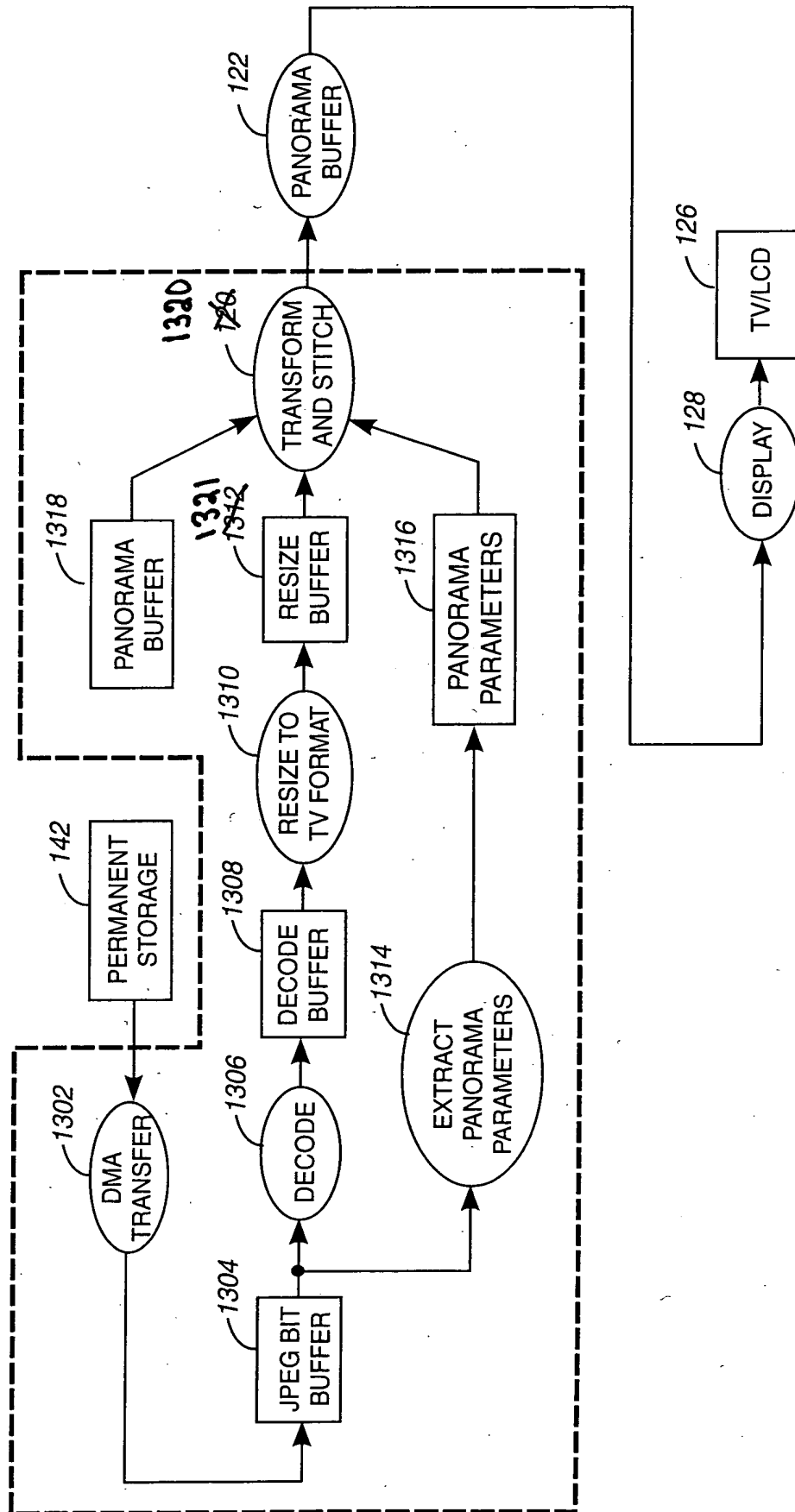


FIG. 14

1300**FIG. 13**